

PATENT

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ABSTRACT OF THE DISCLOSURE

Methods and apparatus for utilizing a downhole deployment valve (DDV) to isolate a pressure in a portion of a bore are disclosed. Any combination of fail safe features may be used with or incorporated into the DDV such as redundant valve members, an upward opening flapper valve or a metering flapper below a sealing valve. In one aspect, a barrier or diverter located in the bore above a valve member of the DDV permits passage through the bore when the valve member is open and actuates when the valve member is closed. Once actuated, the barrier or diverter either stops or diverts any dropped objects prior to the dropped object reaching and potentially damaging the valve member. In another aspect, the tool string tripped in above the DDV includes an acceleration actuated brake that anchors the tool string to a surrounding tubular if the tool string is dropped.

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